Ask the Economist

This column addresses common questions that our readers have on the data we gather and provide. Please send your questions, comments, or suggestions via e-mail to lmi@jobservice.us or U.S. Postal Service mail to Public Affairs, Idaho Department of Labor, 317 W. Main St., Boise, ID 83735.

Q: How much has the cost of living changed in my area in the last year?

Unfortunately, that is not a question that can be answered with 100 percent accuracy. No federal or state statistical agency develops changes in the cost of living measures for Idaho communities. Although Wells Fargo economist Kelly Matthews, based in Salt Lake City, estimates the cost of living for the Boise area, no one has developed estimates for other parts of the state.

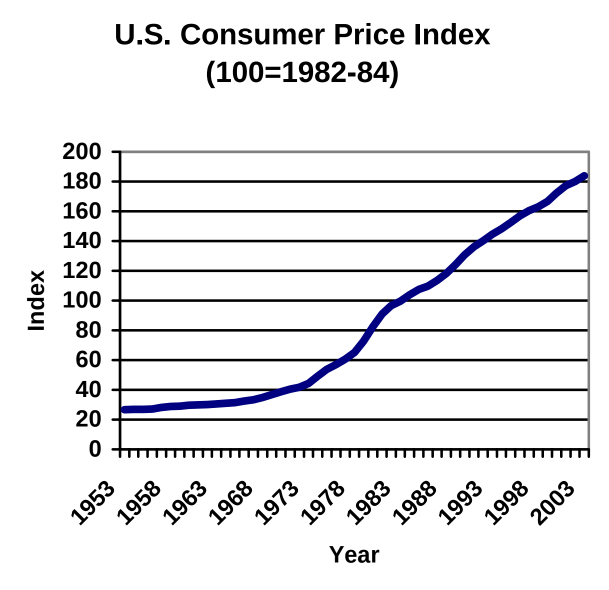
When people want to know how much the cost of living has changed for Idaho communities, they must rely on the U.S. Consumer Price Index (CPI), published monthly by the U.S. Bureau of Labor Statistics (BLS). The U.S. CPI is the average for the metropolitan areas where the CPI survey is conducted. It is a measure of the average change over time in prices paid for a specified basket of consumer goods and services. It is widely used as an economic indicator, as a deflator so that people can see the "real" (adjusted for inflation) change in dollar amounts, and as a common means of adjusting for changes in the cost of living, including escalation clauses that automatically increase wages or other payments based on the CPI.

According to BLS, "An index is a tool that simplifies the measurement of movements in a numerical series. Most of the CPI indexes have a 1982-84 reference base. That is, BLS sets the average index level (representing the average price level)—for the 36-month period covering the years 1982, 1983, and 1984—equal to 100. The Bureau measures changes in relation to that figure. An index of 110, for example, means there has been a 10 percent increase in price since the reference period; similarly an index of 90 means a 10 percent decrease."

Why the U.S. index? Consumer price indexes are available for only 26 metropolitan areas in the United States, including two in the Pacific Northwest (Seattle-Tacoma-Bremerton, Washington, and Portland-Salem, Oregon). BLS publishes information for only three metropolitan areas (Chicago, Los Angeles, New York) every month. It publishes Seattle's index every other month and Portland's index every six months.

Why isn't there CPI information for smaller communities, including Idaho communities? The answer is simple—tracking price data is extremely expensive because it requires extensive and frequent surveys to track prices on hundreds of consumer items.

Some Idahoans use the Portland or Seattle indexes on the assumption that, because Portland and Seattle are closer to Idaho, their consumer prices must move most similarly to Idaho's. That's probably not a good assumption. The coastal area of the Pacific Northwest often experiences very different price movements than the inland area of the Pacific Northwest. It's entirely possible for housing costs or taxes in Portland or Seattle to move differently than housing costs or taxes in Boise, Coeur d'Alene, or Pocatello. The BLS warns that city indexes tend to be much more volatile—moving up or down more abruptly—than the national or regional indexes. Although the regional West's CPI is less volatile than a particular city's index, it is heavily influenced by Los Angeles, San Francisco, and other metropolitan areas where prices sometimes move very differently than Idaho's. It's more likely that an Idaho community's cost of living will change in a similar fashion to the U.S. average than the index of any one city or the West.



Sometimes Idaho Department of Labor customers argue that this comparison to the U.S. average can't be very accurate because the cost of living in Idaho is considerably lower than in most of the U.S. While it's true that the cost of living in most Idaho communities is considerably below the national cost of living, their argument isn't sound. The CPI measures the rate of increase in the cost of living, not the level of the cost of living. So, even though the level of the cost of living in Idaho may be low, this doesn't mean that it isn't increasing at about the same rate as the U.S. cost of living.

The only time that the U.S. CPI will not accurately reflect price changes in an Idaho community is when something unusual is happening to housing costs or energy costs in that community. For example, in the early 1990s, the U.S. was in a recession, housing costs were rising very slowly in most U.S. communities and even falling in a few metropolitan areas. Idaho, however, was riding the peak of the population boom; housing costs were rising at a strong clip and were increasing much faster than the national average. At that time, it was wise to remember that the cost of living in most Idaho communities probably was rising faster than the CPI.

Should I use CPI-U or CPI-W? There are two types of Consumer Price Indexes—one based on the spending patterns of *all* urban consumers (CPI-U) and one based on urban wage earners and clerical workers (CPI-W). According to BLS, "The CPI-U represents about 87 percent of the total U.S. population. It is based on the expenditures of almost all residents of urban or metropolitan areas, including professionals, the self-employed, the poor, the unemployed, and retired persons as well as urban wage earners and clerical workers. The CPI-W is based on the expenditures of households that are included in the CPI-U definition that also meet two requirements: More than one-half of the household's income must come from clerical or wage occupations and at least one of the household's earners must have been employed for at least 37 weeks during the previous 12 months. The CPI-W's population represents about 32 percent of the total U.S. population and is a subset, or part, of the CPI-U's population."

The CPI-U is the index that is most widely used, so it is quoted in the media. It is a newer measure, introduced in the 1990s, to better reflect price changes for a wider portion of the population. Unless you have an old contract stipulating that you use CPI-W, or you are especially interested in wage earners and clerical workers, use the CPI-U index.

So how much did the U.S. CPI increase in the last year? Because the CPI is published every month, you can do a comparison of the changes between any month in the period from January 1913 to the most recent month. For example, the most currently available Consumer Price Index is for April 2003, when it was 183.8. A year before, in April 2002, it was 179.8. That means it increased (183.8/179.8 x 100 –100 =) 2.2 percent in the last year.

Avoiding a big mistake: The most common mistake made by new CPI users is to try to calculate a rate of inflation by subtracting the index numbers from each other, but indexes are similar to compound interest rates, so you must use division to calculate the rate of inflation. These mistakes can be fairly large, even in the current low-inflation environment. For example, if you subtract the April 2002 index number from the April 2003 index number, you would get 4 percent, suggesting that inflation was considerably higher than the normal level of recent years and much higher than it actually was between April 2002 and April 2003. If you are comparing the indexes over a long period of time, especially one that includes a period of high inflation like the 1970s, it can make a huge difference. Let's say that you wanted to see how much consumer prices have increased in the last thirty years, so you calculate the increase in consumer prices between April 1973 and April 2003. In April 1973, the CPI was 43.6. If you incorrectly used subtraction, you would think that prices increased 140.2 percent. If you correctly divide 183.8 by 43.6 and then multiply by 100 to turn it into a percent, and then subtract 100 to get the change, you find the true rate of inflation was 321.6 percent—more than twice as fast as the incorrectly subtracted numbers suggested.

Putting together a formal escalation clause: Often when people draft formal escalation clauses for rental agreements, labor contracts, or other purposes, they write them in such a way as to provoke future arguments about exactly what index should be used and how. Before writing such a clause, you may want to consult the BLS pamphlet "How to Use the Consumer Price Index for Escalation" at: www.bls.gov/cpi/cpi1998d.

Just *Ask the Economist*: If you know exactly what you're looking for, it's easy to find CPI information on the web. It's under "Income and Wages" at the Idaho Labor Market Information (iLMI) website (www.jobservice.ws) or the U.S. Bureau of Labor Statistics (www.bls.gov/cpi). But if you don't know exactly what you're looking for or aren't confident about how to make calculations using the CPI, feel free to call one of the Idaho Department of Labor's economists who are more than happy to help you find the information that best meets your needs. Our phone numbers and e-mail addresses are listed throughout this publication. We encourage you to *Ask the Economist* any time you have a question about Idaho's economy.

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